Policy, Planning, and Research

WORKING PAPERS

International Trade

International Economics Department
The World Bank
June 1988
WPS 16

Antidumping Laws and Developing Countries

Patrick Messerlin

Antidumping laws can be a back door to protection, jeopardizing trade liberalization in developing countries.

Policy, Planning, and Research

WORKING PAPERS

International Trade

Current GATT-consistent antidumping laws have a strong protectionist drift and a pro-cartel bias. They endanger the very edifice of the international trade system based on GATT rules.

LDCs and NICs are deeply involved in antidumping actions, both as defendants and as prosecutors. Their exports represent 50% to 60% of the new cases investigated by the United States and the European Community. They are hurt not only by antidumping actions initiated by other countries but by their own antidumping laws, which may jeopardize their trade liberalization programs.

LDC and NIC involvement in antidumping matters will be a long-term phenomenon, as it is not related to short-term macroeconomic variations. In the Uruguay Round, LDCs and NICs should play an active role in reforming GATT rules to reduce the GATT bias in favor of "injured industries" that compete for imports and to make GATT rules conform more to their ongoing trade liberalization programs.

Why avoid antidumping actions?

- Three years after investigations were initiated, antidumping measures reduced import quantities by 40%.

- The measures taken are severe, increasing values roughly 23%, on top of other protection. They also encourage price-fixing agreements — and create a trade diversion, particularly for LDC and NIC exports.

- Rents accruing to foreign firms because of antidumping protection are substantial for industrial countries, less important for LDCs, and almost nil for NICs. The costs for foreign exporters are the net result of losses in export quantities and the gains in rents received on the remaining exports (a net loss of roughly 17% of initial export values for LDCs and 25% for NICs).

This paper is a product of the International Trade Division, International Economics Department. Copies are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Salome Torrijos, room S8033, extension 33709.

Table of Contents

I would like to thank J.M. Finger for many discussions on this topic, B. Balassa, H. Hauser, C. Mann, P. Meo, E.U. Petersmann and P. Verloren van Themaat for their comments on an earlier version. I would also like to thank Azita Amjadi for patient research assistance.

Introduction

Should the Uruguay Round negotiators on the Antidumping Code take the approach of the Tokyo Round and concentrate on a still more systematic interpretation of the existing notions embodied in current GATT texts on antidumping? Or should they adopt a wider approach which would not hesitate to improve the basic notions on which GATT antidumping rules are based or to introduce new ones? So far, the proposals received by the Negotiating Group on antidumping rules follow the first approach. They tighten the interpretation of the basic notions embodied in GATT texts such as export price, normal and constructed values, comparison of normal value and export price, threat of injury, price undercutting, undertaking. They do not introduce fundamentally new notions.

This paper argues that the Uruguay Round negotiators should not feel limited to the first approach, which is based on a too narrow conception of what "codification" is 1/ and that they should not hesitate to improve the basic notions on which GATT antidumping rules are based. Based on the experience of the Tokyo Antidumping Code, the paper provides evidence showing that negotiations limited to a strict interpretation of the existing rules would bring short-term benefits, but long-term costs. Short-term benefits

---

1/ According to Webster, to codify is "to reduce to a code." It might be argued that the Tokyo Code reduced the scope of some of Article VI most basic concepts. For instance, "material" never qualified injury in the Code, except in one footnote. This illustrates short-term benefits and long-term costs. In the short run, this US-EC compromise eased the introduction of this provision in the US law. Long-term costs came from the lax enforcement of "material injury" in the EC cases.

come from easier international relationships around the negotiating table after agreement on a new Code. 1/ But such benefits would be rapidly eroded if the intrinsic bias of GATT rules in favor of the "injured industry" were preserved, as it was under the Tokyo Antidumping Code. GATT rules are biased because they condemn dumping if "it causes or threatens material injury to an established industry." They do not mention the interests of the rest of the domestic economy which --from an economic point of view-- may be far more important as the "injured industry" for the welfare of the domestic economy.

The paper also argues that Less Developed Countries (LDCs) are the Contracting Parties having the greater interest in improving the basic notions of the GATT rules in antidumping matters. LDCs are undertaking major unilateral trade liberalization programs. These programs - imply long-term political commitments-- are likely to be seriously jeopardized by current "GATT consistent" antidumping procedures used as a backdoor for protection. Therefore LDCs should be more inclined to face the challenge of the difficult task of reshaping GATT rules.

The paper presents the evidence supporting these two arguments, focusing on the long-term costs of antidumping laws coming from the Tokyo Round, particularly for LDCs. It is organized as follows. Section 1 describes how LDCs are now deeply involved in the implementation of antidumping mechanisms, showing how high are the LDC interests at stake. Section 2 shows that this involvement is likely to be a long-term pheno-

---

1/ This argument may be debatable for the Uruguay Round case. Codification can be expected to face decreasing returns to scale, more codification being more and more costly to introduce and being less and less effective in easing international politics when there are more and more trading and negotiating partners.

menon. Section 3 provides evidence on the protectionist impact of antidumping actions on trade flows, by using the example of the EC law, of the best in terms of GATT consistent laws. Section 4 examines the price-fixing effect of antidumping actions, and provides estimates of the costs of antidumping actions for LDC exporters. The conclusion summarizes the results and suggests further research focusing on the "pro-cartel" bias of antidumping procedures due to their price-fixing characteristic, and on the corresponding cost for the country imposing antidumping measures.

Section 1. The LDC involvement in antidumping laws: the current situation

This Section describes the changes in the negotiating positions of the Contracting Parties between the Tokyo and Uruguay Rounds. It relates these changes to the increasing exposure of LDC exports to Industrialized Countries (ICs) antidumping actions and to the introduction of antidumping laws in more LDCs.

From the Tokyo to the Uruguay Round: the rise of LDCs as a negotiating force

It is a LDC -- Korea -- which presented the first proposals on antidumping matters at the Uruguay Round. The Korean proposals are striking, more especially as they include a comprehensive coverage of problems related to the interpretation of the Tokyo Code. The Korean initiative illustrates a drastic change in Industrialized Country and LDC negotiating attitudes between the Tokyo and Uruguay Rounds.

The Tokyo Antidumping Code mainly involved Industrialized Countries. They were the forces trying to impose constraints on the protectionist use of antidumping measures by trade partners. The US negotiators had in mind the British antidumping law and sought to impose limits on the new EC anti-

dumping law which was in the drafting process at this time [Dam, 1977, p. 174]. The EC negotiators were eager to obtain more certainty about the US use of some definitions ("material injury") and procedures, too dominated for European tastes by legalities insensitive to international considerations [Destler, 1986, p. 126].

The Industrialized Country supremacy during the Tokyo Code negotiations created resentment among LDCs. At the last stage of the Tokyo Round, a few LDCs were concerned enough to introduce some element of "differentiated treatment" in the definition of "normal" prices [Winham, 1986, p. 354]. However, for most of the LDCs, antidumping matters were irrelevant: as late as February 1982, only three LDCs had signed the Tokyo Antidumping Code.

IC and LDC negotiating attitudes are evolving during the Uruguay Round under two convergent forces.

First, Industrialized Country initiatives in the Uruguay Round are inevitably hampered by the fact that many proposals received by the Negotiating Group implicitly refer to antidumping cases initiated by the Industrialized Countries and suggest solutions taking into account the rights of the defendants. In other words, Industrialized Countries are in the position of defending their past practices. This is particularly true for the EC and the US. For instance, any proposal dealing with transactions between related parties in the domestic markets of exporters implicitly evokes EC cases involving Japanese electronic consumer goods. Similarly, any proposal related to the deduction of profits of related importers from the exporter's sales prices implicitly refers to US practices. Last but not least, the EC and US proposals made in Geneva are undermined by some crucial initiatives taken in Brussels or in Washington --such as the continuous EC and US efforts

to expand the impact of antidumping procedures to parts of finished products subject to antidumping duties-- which are unilateral extensions of the scope of antidumping actions.

Second, LDCs have been deeply involved in antidumping matters for several years. Their firms are now major defendants in Industrialized Country antidumping actions. LDCs have become --or plan to become-- major prosecutors: many important trading LDCs are implementing or introducing new antidumping laws.

LDC exports are increasingly exposed to Industrialized Country antidumping actions

Since the end of the Tokyo Round, LDC exports are increasingly exposed to Industrialized Country antidumping investigations. As shown by Table 1, the percentage of cases initiated by the EC and US concerning LDC exports is increasing, with a peak in 1985 and 1986 during which LDCs

---

---

and NICs represent 50% to 60% of the new cases investigated by the EC and the US.

A more accurate measure of the LDC exposure to Industrialized Country antidumping procedures should relate shares in the antidumping cases and in imports for each exporter. Hence, "exposure" ratios are defined by the share of an exporting country in the number of cases initiated by an importing country divided by the share of the exports of the exporting country in the

total imports of the importing country. 1/ Taking the example of the EC cases initiated between 1980 and 1985, Table 2 clearly shows exposure ratios equal or inferior to one for all the Industrialized Countries --except Iceland--, but higher than one for most of the NICs and all of the other LDCs (and Non-Market Countries). 2/ The global average exposure ratios for NICs and LDCs are 4 to 7 (respectively) times higher than the corresponding ratio for Industrialized Countries.

It may be shown [Messerlin, 1988a] that trade agreements between the EC and its trade partners are of little help for protecting LDC exports against antidumping actions. Countries benefiting from the EC GSP or from the Lome Convention show an average exposure ratio of roughly 4, while the countries having some kind of association status exhibit a ratio of 2 on the

---

1/ An exposure ratio equal to one means that a country share in antidumping actions corresponds exactly to its share in the imports of the country using antidumping procedures. At this stage, these ratios should not be interpreted as "discrimination" ratios, since they may mirror price policies implemented by the exporting firms. Evidence given in Section 3 however suggests that exposure ratios are likely to be a good proxy for discrimination ratios.

2/ Extra-EC import figures used for calculating shares in extra-EC trade (in Table 2) do not include agricultural and crude oil imports. There are no antidumping actions for these two types of goods which are protected by other tools (variable levies, quantitative nonborder restrictions and indirect taxes).

average. Only the EFTA countries are in a relatively better situation, with an average ratio of 0.5 approximately. 1/

The increasing adoption of antidumping laws by LDCs

Customs laws in virtually all countries contain provisions dealing with antidumping. These provisions are remnants of the 1930s. However, these antidumping provisions were never or barely used since then, particularly by LDCs which achieve their protectionist goals by more expeditious measures.

The recent move for adopting new antidumping laws has little connection --if any-- with these old provisions. New antidumping laws introduce more complex mechanisms. These are generally adopted when LDCs are considering an unilateral trade liberalization program (Brazil, Panama), GATT accession (Tunisia) or both (Mexico, Morocco). Their common characteristic is to introduce some of the GATT --and of the 1979 Code-- provisions concerning the main definitions and procedural aspects. As of March 15, 1988, eight LDCs have signed the Tokyo Antidumping Code; perhaps a dozen more are considering introducing such laws in the near future.

An important characteristic of any new law is its capacity to trigger a "learning" process among complainants. Are LDC antidumping laws used by public authorities and complaining firms with the same celerity as comparable Industrialized Country laws, such as the EC one? Accurate comparisons should be based on the number of initiated cases adjusted for the relative importance of the country's imports. The four Korean cases initiated during the first year --May 1986 to May 1987-- may be considered as equivalent to 40 cases in

---

1/ As shown in Finger & Messerlin [1988], EFTA is a special case, which is explained by tight relationships between EFTA and EC firms.

the EC, since extra-EC total imports are roughly ten times Korean imports. Similarly, the 20 Mexican cases initiated between December 1986 and December 1987 may be considered as equivalent to some 400 EC cases, since there is a rough proportion of 1 to 20 between total imports of Mexico and the EC. These "equivalent" figures for Korea and Mexico should be compared to the peak annual figure of 83 cases initiated by the EC. There is little doubt that the learning process in the LDCs may go at a pace at least as fast as it was in Industrialized Countries. 1/

Section 2. The LDC involvement in antidumping laws: a transitory or a long-term phenomenon?

Is the LDC involvement in antidumping laws a transitory or a long-term phenomenon? The answer to this question depends on what triggers antidumping actions. If macroeconomic forces determine dumping, the LDC involvement may be a transitory phenomenon. If dumping is determined by microeconomic forces --market structures and pricing strategies-- then antidumping actions are protectionist devices, and are likely to last for a long time. This Section examines the arguments which are the most frequently presented when it is suggested that macroeconomic factors matter in dumping cases, i.e., exchange rate variations and debt constraints.

Exchange rate variations

Exchange rate variations may matter in antidumping matters by revealing latent imperfect competition and inducing a "pricing to market" behavior [Krugman, 1985]. Pricing to market occurs when firms do not pass

---

1/ These figures concern initiations, since comparisons at the level of definitive determinations cannot be made because of lack of data.

through nominal exchange rate changes into their export prices. When the exporting country currency is appreciating, GATT rules induce the importing country to interpret pricing to market by foreign firms as dumping, since foreign export prices expressed in foreign currency are then lower than overseas prices. For instance, US exporters may have not increased the prices of their exports to the EC to the degree that one might have expected looking at exchange rate variations, during the period of the dollar strong appreciation vis-a-vis the ECU. As a result, US export prices may have become lower than US domestic prices of similar goods.

Using the EC case, the existence of a significantly positive coefficient between foreign nominal exchange rate appreciations and antidumping cases initiated was tested. The results do not support such a relationship. 1/

This negative result fits well with the fact that most of the antidumping cases initiated by the EC --and by the other countries as well-- concern intermediate goods, e.g., basic chemical, pulp, paper and steel products, basic motors or electronic components. These products are characterized by a relatively high degree of standardization. This concentration on relatively standardized goods is indeed a logical consequence of GATT rules emphasizing the necessity to compare "like products." With little room

---

1/ The basic semilog equation is: $a_{t,k} = \alpha + \beta e_{t,k} + \gamma T$, where $a_{t,k}$ is the number of antidumping actions initiated by the EC against country k (or alternatively the exposure ratios), $e_{t,k}$ the nominal exchange rate (in terms of ECU), and T the time trend. For 1970-1986, the result is: a = -108.7 (19.1) + 0.004e (0.009) + 0.055T (0.009), with R2=0.06, F=17.4 and DW=1.03, (standard errors in parenthesis). Correction for first-order autocorrelation does not significatively modify the results.

for product differentiation --a major source for imperfect competition-- pricing to market is not likely to occur significantly. 1/

Debt constraints

Macroeconomic forces may matter more directly. It is often said that debt constraints may induce countries to implement policies aiming at favoring export sales at prices lower than the domestic ones in order to get the external revenues necessary for servicing the debt. This argument --when applied to LDCs and NICs-- raises two questions.

First, are antidumping cases concentrated on the highest indebted LDCs for a given period of time? Tests performed for four different periods --1970-87, 1977-87, 1977-81 and 1982-87-- do not show any significant relationship. 2/

Second, do LDCs with increasing debts face increasingly numerous antidumping cases? Exposure ratios calculated for EC antidumping cases against highly indebted LDCs give a first hint on this possible relationship. Five LDCs (Argentina, Brazil, Mexico, Venezuela and Yugoslavia) have faced EC antidumping actions, three of them before and after 1982 as well. That the average exposure ratio of these countries increases from 1.6

1/ In case of relatively standardized products, product differentiation may be achieved by the timing at which a good is available. Many antidumping cases deal with this problem, when considering the impact of short-term contracts ("free" markets) on long-term contracts, i.e., quasi-vertical integration schemes. For details, see Messerlin, 1988b.

2/ The tested equation (in semilog) was: $a_{P,k} = \alpha + \beta\, d_{P,k}$, where P stands for the various periods defined in the text, and d the increases in debt during one period P. For the period 1970-87, the result is: a = 0.67 (18.1) + 0.94d (1.9), R2=0.02, F=0.24, DW=2.48. Lags (one period) do not significatively modify the results.

for 1977-81 to 5.0 for 1982-87 seems to substantiate the alleged relation ship. But on the other hand, the ten other highly indebted countries in the Baker list did not face any antidumping action, before or after 1982; the Brazil exposure ratio remained stable --roughly 3.0 for both periods; the average ratio for four other indebted countries (Egypt, Korea, Malaysia, Turkey) increased only slightly, from 1.6 for 1977-81 to 2.1 for 1092-87; and the average ratio of three indebted East European countries (Hungary, Poland and Romania) decreased from 7.1 to 5.3 between these two periods. These figures do not suggest any systematic relationship between antidumping actions and debt constraints.

Tests using pooled cross-section and time series data were performed in order to get a more systematic view. Results do not suggest any significant relationship between debt levels or variations and antidumping actions. 1/

Antidumping cases are concentrated on few industries

It is reasonable to expect that --by nature-- macroeconomic forces would have an impact across all the industries. 2/ This would imply a widespread of antidumping cases across industries. Evidence does not support this hypothesis. Antidumping actions are concentrated on a few industries, namely chemical, pulp and paper, and steel. Recently, a narrow range of

---

1/ The basic semilog equation is: $a_{t,k} = \alpha + \beta d_{t,k} + \gamma T$ where d is the long term debt outstanding disbursed (or alternatively debt-export ratio). For 1982-86, the result is: a = -14.4(189.1) - 0.08d (0.11) + 0.008T (0.09), R2=0.008, F=0.27, DW=0.91. F-tests between tests for different periods or groups of countries are not significant at 5 percent.

2/ Assuming macroeconomic forces have no significantly different impact according to preexisting market structures, as it was assumed in the pricing to market approach.

consumer electronics (TVs, VCRs) only slightly widen the range of industries facing antidumping actions. For instance, 56% of the EC cases initiated between 1980 and 1987 concern chemical, pulp and paper, and steel products. They also constitute the bulk of the US, Korean and Mexican cases: 75% of the cases initiated by Korea and 80% of the cases initiated by Mexico deal with chemical products.

A weaker form of the hypothesis is that macroeconomic forces only widen the range of goods under antidumping investigations. It is not supported by the evidence. For instance, roughly 70% of the EC antidumping cases initiated after 1982 against the five Baker countries mentioned above deal with chemical, steel and pulp products. Tests using the Herfindahl coefficient of concentration of cases by industry as the dependent variable confirm no significant relationship between concentration by industry of antidumping cases and macroeconomic variables.

Section 3. The impact of antidumping actions on imported quantities

The negative results of Section 2 imply that antidumping actions are mainly driven by the traditional --economic and political-- determinants for protection. 1/ This Section provides evidence on three crucial points illustrating the protectionist content of antidumping laws: first, the wide range of the measures taken and the bias towards price-fixing agreements; second the magnitude of the measures; third, the sharp decline of imported quantities under antidumping actions. 2/

1/ Finger, Hall and Nelson [1982] examined the impact of these factors on US cases. Norall [1986] gave examples in EC cases. See also Dixit [1988].

2/ Evidence provided is based on the EC case, because the EC law is a model of GATT-consistency. Moreover, data on intra-EC trade is very useful.

The measures: a bias towards price-fixing agreements

Table 3 presents antidumping measures in five main categories --ad valorem duties, "other" duties, undertakings, "mixed" measures, and "possibly" protective measures. "Other" duties refer to specific or variable duties,

---

---

both de facto based on reference prices. "Undertakings" are private price or quantity agreements between exporting and domestic firms. They may aim at eliminating either the margin of "dumping" -- the difference between the export price and the overseas price-- or the margin of "injury" --generally the difference between the export price and the minimum price need to provide a "reasonable" rate of return to the EC firms. "Mixed" measures correspond to cases terminated by a mix of measures taken against the various firms and/or countries involved in the same antidumping action. Lastly, "possibly" protective measures correspond to investigations terminated by no dumping, or de minimis dumping or no injury findings. 1/

The bulk of the protective measures taken clearly consist of price-fixing mechanisms: specific and variable duties, price or quantity agreements --"undertakings"-- between foreign and domestic firms. All together, these price-fixing measures represent half of all measures taken. 2/

1/ No or de minimis dumping and no injury findings follow explicit threats of actions --in the complaint and initiation-- and detailled investigations. To assume they have no "possibly" protectionist content is a legalistic fiction.

2/ Roughly 30% of antidumping actions are terminated by "possibly" protective measures.

This figure should be compared to the ad valorem duties, --less than 6% of all measures taken.

The breakdown of measures by different countries (Table 3) shows striking contrasts. Cases against Industrialized Countries exhibit a low proportion of "possibly" protective measures, a high proportion of ad valorem duties --particularly in cases against Japan-- and a high proportion of mixed measures, suggesting a high degree of complexity and differentiation in terms of decisions taken. Cases against the NICs and the LDCs are dominated by a high proportion of "possibly" protective measures and of price-fixing measures --specific and variable duties, undertakings-- although interestingly, the Asian NICs are more subject to ad valorem duties. Last, cases against Non-Market Countries (NMCs) are dominated by price-fixing measures, i.e., undertakings based on the margin of injury.

The magnitude of the measures

The average ad valorem equivalent of the antidumping protective measures taken by the EC against all countries --excluding "possibly" protective measures-- is roughly 23%. This is a high figure, since antidumping measures are added to regular tariffs. Table 3 provides detailed estimates of the ad valorem equivalents of the measures taken by group of countries. 1/ It suggests two main results, both related to LDCs and NICs.

1/ The estimates are based on the following measures: ad valorem duties, ad valorem equivalents of specific and variable duties and of the undertakings when these undertakings are based on the dumping margins. The highest ad valorem equivalents generally concern cases with specific duties imposed on Non-Market Country exports.

Ad valorem equivalents are the highest for the LDCs, the Asian NICs and the NMCs. Cases against the LDCs and the Asian NICs thus exhibit both the highest rates of "possibly" protective measures and the highest rates of protection when protective measures are taken. This pattern suggests the possibility of a bias against newcomers. If antidumping cases are pro-cartel devices, as has been argued [Messerlin, 1988b], one should expect that newcomers will be kept as marginal as possible, a point consistent with this possible bias.

The ad valorem equivalent of the measures imposed and the estimated margins of dumping are related in a way which depends on the countries under investigation. The two are similar in cases against the USA, the Asian NICs and China. 1/ In cases against the Mediterranean NICs, the ad valorem equivalent of the measures imposed is 60% lower than the estimated dumping margins. In cases against the other countries, the measures taken are 30% to 40% less than the dumping margins.

Antidumping actions sharply reduce imported quantities

The decline of imported quantities of goods subject to EC antidumping actions --terminated by protective or "possibly" protective measures-- is shown by Table 4-i. 2/ The first year after the initiation of the

---

1/ This may be also observed for the EFTA countries. However, the low magnitude of the measures taken against these countries suggests to put them aside.

2/ Tables 4 to 7 are based on import data at a very disaggregated level (NIMEXE 6 digit). They present unweighted averages of indexes calculated on a case by case basis. When less than five observations are available, no results are shown. The years (t+4) and (t+5) are --by construction-- based on less observations than the other years. Morever, they correspond to cases initiated in 1980 and 1981 exclusively. The interpretation of the results for these two years should be any way more cautious than the interpretation of the results of the other years.

investigation, i.e., at a time when generally definitive measures are still unknown, imported quantities decreased by 18% on the (unweighted) average.

Three or four years after the initiation, quantities still imported represented only two-thirds of the imports of the initiation year. Five years after, they were reduced to one half the initial imports. A breakdown of all the cases by year show a very similar pattern of decline for every year. 1/

The various types of protection devices have very different impacts, as shown by Table 4-ii. Five years after the initiation, imported quantities decline on the average by two-thirds for all cases terminated by protective measures. Imports facing ad valorem tariffs declined more than imports facing mixed measures --which included some duties-- and much more than imports facing undertakings. This is because most undertakings are based on the injury margins, while most ad valorem duties are based on dumping margins; higher --by definition-- than the injury margins. Moreover, undertakings may be difficult to monitor and less restrictive than expected. Table 4-iii shows that imports in cases with "possibly" protective measures are stable during

---

1/ It is sometimes suggested that this sharp decline in imports may be due to the fact that imports during the year of initiation (or the two years before) are in "excessive" supply since they are "dumped." Observed decreases would thus be a statistical artifact mirroring the "inflated" (by the dumping) figures of the year of initiation, and changes in the base year would modify the results. However, computation of alternative unweighted indexes based on each of the prior three years does not modify the above results.

the three years following the initiation of the cases, what is consistent with a protectionist content of these measures. 1/

The breakdown of the import decline by exporting countries illustrated in Table 4-iv shows that imports coming from the Industrialized Countries declined more than imports coming from Non-Market Countries, the NICs and the LDCs. 2/ These differences perfectly match the breakdown of protective devices by group of countries illustrated in Table 3: exports of countries facing more ad valorem duties than undertakings are more hurt than exports of countries mainly facing undertakings.

Lastly, Table 4 shows that the mere threat of initiating antidumping actions may have some effect: imports decline by 5% on the average between the year before the initiation and the year of the initiation. "Possibly" protective measures are associated with a minimal average decline of 15% -- between the prior and subsequent year of the initiation-- of imported quantities. These results are consistent with the classification adopted which records no or de minimis dumping and no injury findings as "possibly" protective measures. 3/

1/ The decrease afterwards is due to a drastic evolution of the imports in two cases only, and seems to correspond to very specific conditions.

2/ This result is based on the cases initiated between 1980 and 1985. It would be interesting to see whether the relative increase in terms of cases initiated against LDCs and NICs since 1985 is mirrored by the relative import declines.

3/ Both cases with protective measures and cases with "possibly" protective measures show increases of imports before initiation. However cases with "possibly" protective measures exhibit lower growth rates of imports and a first decline of imports in the year preceding the initiation.

Section 4. The costs for LDCs of antidumping protection

Antidumping actions are discriminatory in the sense they deal only with a portion of the imports of the considered products. 1/ Therefore, the drastic decrease in imported quantities of "dumped" goods can have a straightforward impact on prices only if there are no alternative sources for these goods, i.e., only if there is no trade diversion. The effects of trade diversion on prices, in turn, depends on the market structure, i.e., both the market power that foreign firms had before antidumping actions were initiated and the market power that the EC firms had after the antidumping measures were taken. After examining these three basic points, this Section presents an estimate of the costs of antidumping actions on exporting countries, focusing on the LDC and NIC cases.

Antidumping actions create trade diversion

The order of magnitude of trade diversion triggered by antidumping actions is presented in Table 5. Both increases of extra-EC imports coming from "nondumping" countries and increases in intra-EC trade are quite subs-

---

---

stantial. It is interesting to note that even cases terminated with "possibly" protective measures show trade diversion which may be explained by two possible factors: either "dumped" imports were not competitive, or the threat of antidumping actions is sufficient to trigger a relative contraction of the imports under investigations. Additional computations show that

---

1/ For an analysis of the impact of discrimination and selectivity on GATT rules, see Messerlin, 1988a.

exports coming from the "non-dumping" countries increase more when "dumping" sources are LDCs than Industrialized Countries and that trade diversion favors more intra-EC trade when "dumping" countries are Industrialized Countries.

As a result of the trade diversion, the share of the "dumped" imports in the total extra-EC imports decreases strongly after the initiation year, as shown by Table 5. Interestingly, the decreased NIC share is more pronounced than the decreased LDC share. This fits well with the types and magnitudes of protection: LDC exports benefit from more "possibly" protective measures than NIC exports and from a structure of protection more dominated by undertakings based on injury margins.

These massive trade diversions suggest that total trade --i.e., the sum of "dumped", "nondumped" and intra-EC imports-- in goods under antidumping actions may have expanded after the antidumping measures. Table 5 confirms that this is indeed the case. 1/ This observation strongly suggests that to relate "dumped" import declines to domestic (EC) consumption declines --as sometimes suggested-- is not convincing. 2/

1/ Interestingly, this feature is not observed for cases terminated by ad valorem duties and for cases involving NMCs. The latter point may be explained by the fact that NMC exports under antidumping actions mainly seem to be traditional inputs the NMC firms produce for EC firms.

2/ It is true that many antidumping cases involve products characterized by decreasing consumption. However, the crucial point is to determine in which direction the relation goes: it may be that a decrease in demand induces dumping practices; or, it may be that the global domestic consumption before antidumping actions declines because price stickiness imposed by dominant domestic producers depresses more the demand than price decreases from foreign exporters can increase it. The evolution of total trade after the initiation of antidumping actions --i.e., although prices were maintained or increased in the EC markets because of the protection granted-- makes the second explanation the most plausible one.

Selectivity in antidumping actions: the "foreign rent" effect

Trade diversion may be shaped by the degree of selectivity with which antidumping actions are used. To target the right countries and firms at the right time may determine substitutions between alternative sources of imports. The higher the selectivity is, the more likely "dumped" imports may be seriously restricted.

A crude measure of selectivity is the ratio of "dumped" imports over extra-EC total imports during the year of initiation and the three prior years: the lower the ratio is, the higher the selectivity is. Table 5 shows a significant average level of selectivity since "dumped" imports represent less than 50% of all extra-EC imports for the goods under investigation. However, this average covers a wide range of ratios, from a maximum of 98.9% to a minimum of 0.3% at the initiation year.

Interestingly, Table 5 shows that selectivity is more pronounced in antidumping actions against LDCs and NICs: "dumped" exports represent only one fourth of the total extra-EC imports during the three years before the initiation, and one third during the year of initiation. Market shares of the LDC and NIC exports in terms of the total EC consumption of the goods considered are correspondingly low --approximately 19% and 11%, respectively-- two to three years before the initiation, and not much higher --22% and 16%, respectively-- at the year of initiation. 1/

This capacity to trigger antidumping actions against LDC and NIC exports before these exports represent a substantial percentage of the total

---

1/ For more details on the domestic market structures under antidumping actions, see Messerlin, 1988b.

EC markets suggests that -- when antidumping actions are initiated -- LDCs and NICs are less likely to have strong market power in the EC markets than other exporters, particularly those from Industrialized Countries.

The evolution of the import prices under antidumping actions given in Table 6 confirms this hypothesis. First, the prices (unit values in constant ECUs) of "dumped" goods increased steadily after the year of initiation, when all the cases are considered together. This global result looks ironical:

---

antidumping actions appear to do what "predatory pricing" --an argument often presented for justifying antidumping laws-- is supposed to do, i.e., a decrease in prices is followed by price increases in, now, more monopolistic markets. Second, results by group of countries confirm that exports from NICs --and in a lesser extent, those from LDCs-- do not enjoy the same price increases than exports from Industrialized Countries, when facing antidumping measures. In other words, rents accruing to foreign exporters because of antidumping actions are lower in the case of LDC and NIC exporters than in the case of Industrialized Country exporters.

Results by kind of protective measures also are striking. Prices under ad valorem duties tend to be moderately depressed, as it can be expected since this form of protection does not trigger indirect effects --such as upgrading quality-- which may induce price increases and does not generate rents. Prices under the other forms of protection are increasing, suggesting that foreign firms get rents. However, there is an interesting difference in price behavior between cases terminated by undertakings and cases terminated

by mixed measures, i.e., by a mix of undertakings and duties for the same cases. Prices under mixed measures increase during the five years after the initiation, while prices under undertakings tend to decrease after the third year. Two factors may be combined for explaining this divergence. First, the EC Regulations include a "sunset" clause, i.e., antidumping measures are provided for five years only. Second, mixed measures which incorporate some public price monitoring by the EC authorities through antidumping duties offer stronger price-maintenance mechanisms than pure undertakings. As a result, competition tends to surface again when the "sunset" year is approaching. But, better price disciplines embodied in mixed cases annihilate this potential renewal of competition.

Antidumping measures as procartel actions: the "price maintenance" effect

Existing domestic market structures combined with the price-fixing bias of the antidumping measures are mirrored by the price evolutions of the substitutes of the "dumped" goods, i.e., both goods produced by the Member States and traded between them and goods imported from the Rest of the World and not subject to antidumping measures.

Intra-EC trade prices --in constant ECUs-- decrease in the years preceding the initiation, and are stabilized since then. This stabilization

---

---

is more pronounced in the cases with protective measures than in the cases with "possibly" protective measures, and in the case with undertakings and mixed measures than in the case with ad valorem duties. This last case is particularly striking: it illustrates how ad valorem duties protect less from

price variations in the rest of the world, a characteristic mirrored by the relatively larger increase in intra-EC trade (Table 5) in these cases. The previously observed divergence in terms of price behavior between cases terminated by undertakings and cases terminated by mixed measures also exists in the case of intra-EC prices, although less clearly.

Table 7 illustrates the relative prices of "dumped" to intra-EC imports. It provides three additional interesting pieces of information. First, ad valorem duties have a clear impact on relative prices: after three years, "dumped" prices increase --relatively to intra-EC prices-- by 16%, i.e., approximately by the average amount of the duties given by Table 4. Second, relative prices under undertakings increase much less, confirming the general price increase made possible by the cartelization process. Third, the evolution of the relative prices by group of countries confirms that LDC and NIC exporters are less able to increase their relative prices than exporters from the Industrialized or Non-Market Countries.

Last, the evolution of extra-EC "nondumped" import prices illustrates the general drift to more monopolistic markets. As shown by Table 6, competition from the "dumping" countries before the initiation of antidumping actions obliged the "nondumping" foreign exporters to decrease their prices. After the imposition of antidumping measures, the "nondumping" exporters tend to align their prices, i.e., to increase them. In case of undertakings, they are interested in joining possible cartel, particularly if they are not the most efficient producers. In case of specific duties, domestic firms have an

additional interest in price increases by foreign competitors. 1/ In case of variable duties, they align to the reference prices implicitly introduced.

In sum, the cartelization process --at least in terms of price competition-- is under way, except for the minor part of the cases terminated by ad valorem duties.

A first estimate of the costs of antidumping measures for exporting countries: the LDC and NIC cases

There is no doubt that antidumping measures are costly for the country imposing them. In the EC case, the traditional costs of resource misallocation are likely to be increased by the transfer costs associated with the rents that most of the antidumping measures generate. A similar result should be expected for LDCs implementing antidumping laws.

This Section addresses a different problem: which is the cost for the exporting countries facing antidumping measures? An estimate is presented for the LDCs and NICs.

First, this cost is determined by the extent to which "dumped" imports are restricted. This requires an estimate of the potential imports which would have prevailed --everything else kept constant-- in the absence of the additional protection granted by antidumping actions. A conservative hypothesis is adopted here: the LDC and NIC imports would have stayed at the level reached at the year of initiation. Two reasons justify this hypothesis. As shown by Table 6, there are no sign of aggressive price

---

1/ In case of a specific duty, the highest the "world" price is, the larger the consumer surplus shifting as producer surplus is, the larger the proportion of the producer surplus vis-a-vis the tariff revenue is. The first motive is common with ad valorem duty. The second motive is an additional one.

decreases from LDC and NIC exporters in the long run: price decreases are essentially implemented the year of initiation. As products concerned are mainly intermediate goods, quantities bought from LDC and NIC exporters are likely to react quickly to price changes, so that imports in the year of initiation seem a good proxy of the equilibrium import level to be expected at these decreased prices. Second, as mentioned above, LDC and NIC exporters have low market shares: in the absence of antidumping actions, their market shares would not have been increased without pressures on their prices. 1/

Second, the cost to be estimated is a net cost: the increase in protection combined with trade diversion imposes a cost to foreign exporters, while the "foreign rent" impact of the type of protection implemented gives them a gain. 2/ In case of perfect substitution and competition, imported quantities restricted from one source are provided by other sources at a similar price. The costs for the importing country from protection are zero in such a case. The costs for exporters facing antidumping measures are equal to the value of their total lost exports. In the more plausible case of imperfect competition, the costs depend on the elasticities of import demand and export supply --which determine the traffic "restriction"-- and from the elasticity of substitution --which determines the extent to which trade diversion occurs between "dumped" goods and their alternatives. Traditional computations make heroic assumptions on the value of these three elasti-

---

1/ The fact that cases terminated by "possibly" protective actions show a slight decrease in exports from "dumping" sources may be another argument in favor of the conservative hypothesis.

2/ Other elements having an impact on this cost which should be included in a more general study would concern the LDC trade policies, the flexibility of LDC economies to adjust to Industrialized Country trade policies, etc.

cities. These assumptions may make sense when many different products are involved. 1/ However, such an approach is risky when applied to protection devices which --for most of them-- change the conditions of competition on the domestic markets, and to a limited range of products. 2/

Therefore, much simpler computations --based on the data provided by the previous Tables and on the conservative hypothesis of potential imports equal to the imports observed in the year of initiation-- are made. They are restricted to the three years after the initiation, in order to eliminate situations in which competition may regenerate because of the sunset clause. Table 4 shows that quantities imported from LDCs on the average fell by a little less than 30%, and those imported from NICs by 25%. These figures represent the costs for the exporting countries of increased protection and of trade diversion. However, these costs are counterweighted by the price increases --rents-- exporters are able to charge on the remaining quantities. Table 6 shows that unit values of imports from LDCs increase by 18% on the average while unit values of imports from NICs are stable. As a result, the net costs imposed by the EC antidumping actions on LDCs represent roughly 17% of the value of the initial exports [i.e., 30% - (18% * 70%)]. The corresponding figure of NICs is higher, roughly 25% essentially because NIC exporters get few rents from the increased protection. 3/

1/ For a recent survey of the literature and results, see Karsenty and Laird, [1987].

2/ An indirect impact of price maintenance by EC firms is to change the slope of the domestic industry supply curve.

3/ A good reason for that is the relative importance of ad valorem duties on NIC exports, when protective measures are taken.

These figures should not be misunderstood. They may look high when compared with the few percent of LDC and NIC export losses estimated by studies examining the impact of the Industrialized Country protection on all industries. Obviously, the importance of the losses in antidumping cases mirrors the very high level of protection in these cases, compared with the average level of protection in Industrialized Countries. But more fundamentally, the discrepancy between the two sets of estimates comes from the fact that our estimates consider many elements as fixed which are allowed to vary in the other studies mentioned. First, our estimates do not allow the fact that exporters may modify export channels and/or the type of products exported. Because our study looks at very narrowly defined products, these two possibilities should not be excluded, as indeed suggested by the fact that existing cases are --not too rarely-- extended to additional countries or goods. Second, these estimates do not take into account the other side of trade diversion, i.e., the LDC and NIC exports reallocated from the EC to other world markets. This possibility is especially likely as LDC and NIC exporters are among the most efficient ones. Third, these estimates do not take into account that the EC industries protected by antidumping actions use rare resources which are not available for the other EC industries. Reduced production from these latter EC industries may open new markets for LDC and NIC exporters.

Conclusion

This paper provides evidence showing that current GATT consistent antidumping laws have a strong protectionist drift, and as such, endanger the international trade system based on GATT rules.

Evidence follows from six results, using the EC case as an illustration. First, three years after the initiation of the investigations, antidumping measures reduced imported quantities by 40%. Second, the measures taken are severe, with an average ad valorem equivalent of roughly 23%, to be added to the existing protection. Third, they seem to have a strong bias in favor of price-fixing agreements. Fourth, antidumping actions create trade diversion, particularly in the case of LDC and NIC exports. Fifth, rents created by antidumping protection accrue to foreign firms: these rents appear to be substantial for Industrialized Countries, less important for LDCs and quasi-nul for NICs. Sixth, the costs for the foreign exporters are the net result of the losses in exported quantities and the gains in rents received on the remaining quantities to be exported: a rough estimate suggests a net loss of 17% of the initial value of the exports for the LDCs, and 25% for the NICs.

This paper also shows that LDCs and NICs are now deeply involved in antidumping matters. Their exports represent 50% to 60% of the new cases investigated by the two major Industrialized Countries initiating antidumping actions; the EC and US. Last, LDCs and NICs are introducing antidumping laws, and initiating investigations at a pace at least comparable to the pace observed for the Industrialized Countries. The LDC and NIC involvement in antidumping matters is to be expected a long-run phenomenon, since it does not appear related to short-term macroeconomic variations.

Further research should assess the costs of antidumping laws for the country implementing them. This cost is the sum of the traditional cost of protection and of the cost due to the procartel impact of antidumping laws. This second point appears more crucial, according to the results presented in this paper.

LDCs and NICs are hurt not only by the antidumping actions initiated by other countries, but also by their own antidumping laws which may jeopardize their trade liberalization programs. As a result, LDCs and NICs should play a very active role in the Uruguay Round for reforming GATT rules, in order to reduce the GATT bias in favor of import-competing "injured industries" and to design GATT rules more in accordance with their ongoing trade liberalization programs.

References

Dam, K.W., 1977, The GATT: Law and the International Economic Organization, The University of Chicago Press.

Destler, I.M., 1986, American Trade Politics: System under Stress, Institute for International Economics.

Dixit, A., 1988, "Antidumping and Countervailing Duties under Oligopoly," European Economic Review, 32, p.55-68.

Finger, J.M., H.K. Hall and D. Nelson, 1982, "The Political Economy of Administered Protection," American Economic Review.

Finger, J.M. and P.A. Messerlin, 1988, Antidumping: A Problem in International Trade, forthcoming.

GATT, 1987, Antidumping and Countervailing Measures Legislation, GATT.

Karsenty, G. and Laird, S., 1987, "The GSP: Policy Options and the New Round," Weltwirschaftliches Archiv, Band 123, Heft 2, p. 262-296.

Krugman, P., 1985, "Pricing to Market When the Exchange Rate Changes," mimeo, MIT, Cambridge, Mass.

Messerlin, P.A., 1988a, "The Developing Countries and the Uruguay Round Negotiations on the Antidumping Code," in Dicke, D.C. and Petersmann, E.U., editors, Foreign Trade in the Present and a New International Economic Order, Freiburg University Press, forthcoming.

Messerlin, P.A., 1988b, "Antidumping and Competition Laws: the EC Experience," mimeo, The World Bank.

Norall, C., 1986, "New Trends in Antidumping Practice in Brussels," The World Economy.

Winham, G.R., 1986, International Trade and the Tokyo Round Negotiation, Princeton University Press.

Table 1: Cases initiated by selected countries (1980-87)

	1980	1981	1982	1983	1984	1985	1986	1987	Total	1986	1987	Total
(i) Total number of cases initiated [a]												
against				by the European Community [b]						by Korea [c]		
all Countries	25	47	55	43	42	35	24	34	305	3	1	4
				by the United States						by Mexico [d]		
all Countries	46	14	61	47	70	64	70	17	389	1	19	20
(ii) Breakdown by selected countries, in % (100 = all Countries)												
				European Community [b]						Korea [c]		
Indust'd Ctries	56.0	17.0	30.9	23.3	16.7	20.0	4.2	38.2	25.2	66.7	100.0	75.0
EC [b]	---	---	---	---	---	---	---	---	---			
JAP	4.0	2.1	5.5	9.3	9.5	5.7	4.2	29.4	8.5	66.7	100.0	75.0
USA	32.0	12.8	12.7	2.3	2.4			2.9	7.9			
Developing Ctries	8.0	4.3	10.9	11.6	4.8	8.6	25.0	2.9	8.9			
China	4.0	4.3	7.3	4.7	4.8	2.9	8.3		4.6			
Newly-Ind'd Ctries	28.0	8.5	23.6	25.6	33.3	45.7	41.7	52.9	30.5	33.3		25.0
Asean Four	8.0	2.1		4.7	2.4	5.7	8.3	20.6	5.6	33.3		25.0
Korea		2.1				2.9	4.2	11.8	2.3	---	---	---
Asean NICs	4.0			2.3		2.9			1.0			
Latin NICs	8.0		12.7	2.3	2.4	14.3	12.5	11.8	7.5			
Mexico						2.9	4.2	8.8	1.6			
Mediter. NICs	8.0	6.4	10.9	18.6	28.6	31.4	20.8	17.6	17.4			
Non-Market Ctries	8.0	70.2	34.5	39.5	45.2	25.7	29.2	5.9	35.4			
				United States						Mexico [d]		
Indust'd Ctries	91.3	50.0	77.0	53.2	35.7	31.3	41.4	76.5	53.5	100.0	84.2	85.0
EC [b]	76.1	21.4	67.2	27.7	5.7	12.5	21.4	17.6	31.4		36.8	35.0
JAP	6.5	21.4	4.9	12.8	7.1	7.8	12.9	47.1	10.8			
USA	---	---	---	---	---	---	---	---	---	100.0	42.1	45.0
Developing Ctries	6.5	7.1	8.2	10.6		14.1	14.3		8.5			
China	2.2		4.9	8.5		9.4	1.4		3.9			
Newly-Ind'd Ctries		28.6	13.1	34.0	40.0	50.0	37.1	23.5	30.3		15.8	15.0
Asean Four		21.4	6.6	19.1	7.1	21.9	12.9	11.8	11.3			
Korea		7.1	3.3	12.8	4.3	7.8	5.7		5.4			
Asean NICs						3.1	1.4		0.8			
Latin NICs			8.2	10.6	18.6	18.8	15.7	5.9	11.8		10.5	10.0
Mexico				2.1	1.4	3.1	2.9		1.5	---	---	---
Mediter. NICs		7.1		4.3	14.3	6.3	10.0	5.9	6.2		5.3	5.0
Non-Market Ctries	2.2	14.3	1.6	2.1	24.3	4.7	7.1		7.7			

Sources: EC Official Journal, US TAMS, GATT for Korea and Mexico.

Notes : [a] cases are defined by the goods and exporting countries concerned.
[b] EC with ten Member States [i.e., excluding Portugal and Spain].
[c] From January to June (included) 1987 [Source: GATT].
[d] all countries mentioned in the notices of initiation.

P.A. Messerlin, Experiences of Developing Countries with Antidumping Laws, The World Bank, May 1988.

Table 2. "Exposure" ratios in the EC antidumping cases

	Shares in extra-EC trade			Shares in antidumping cases			"Exposure" ratios [a]		
	77-81	82-87	77-87	77-81	82-87	77-87	77-81	82-87	77-87
Industrialized Countries									
All ICs	61.5	60.8	61.2	32.7	23.2	27.9	0.53	0.38	0.46
1. USA	22.5	21.7	22.1	11.2	4.3	7.7	0.50	0.20	0.35
2. Japan	8.4	10.6	9.4	8.1	10.7	9.4	0.97	1.01	1.00
3. EFTA	23.8	22.9	23.4	7.2	4.3	5.7	0.30	0.19	0.24
4. Other ICs	6.9	5.6	6.3	6.3	3.9	5.0	0.91	0.69	0.81
Developing Countries									
All LDCs	1.6	2.0	1.8	2.7	9.0	5.9	1.64	4.40	3.24
1. LDCs	1.2	1.6	1.4	2.7	7.3	5.0	2.24	4.55	3.64
China	0.8	1.1	1.0	2.2	4.7	3.5	2.67	4.13	3.58
2. Oil-rich LDCs	0.4	0.4	0.4	0.0	1.7	0.9	0.00	3.85	1.98
Newly-Industrialized Countries									
All NICs	14.0	16.0	14.9	22.0	36.5	29.4	1.57	2.28	1.97
1. Asean Four	3.1	3.6	3.3	4.0	6.0	5.0	1.32	1.66	1.52
Korea	1.2	1.3	1.3	2.7	2.6	2.6	2.22	1.96	2.09
Taiwan	1.2	1.5	1.3	0.4	2.6	1.5	0.39	1.71	1.16
2. Other Asean NICs	1.4	1.2	1.3	0.4	0.9	0.7	0.32	0.69	0.50
3. Mediter. NICs	7.2	8.9	8.0	13.0	20.6	16.9	1.82	2.32	2.12
Spain	3.8	4.5	4.1	9.9	6.4	8.1	2.58	1.42	1.96
Turkey	0.4	0.7	0.6	1.3	3.4	2.4	3.13	4.88	4.33
Yugoslavia	1.2	1.4	1.3	1.3	9.0	5.3	1.14	6.29	4.05
4. Latin NICs	2.4	2.3	2.3	4.5	9.0	6.8	1.90	3.97	2.93
Brazil	1.4	1.5	1.4	4.0	4.7	4.4	2.96	3.09	3.05
Mexico	0.3	0.2	0.2	0.4	2.1	1.3	1.73	9.16	5.31
Non Market Countries									
All NMCs	7.5	6.5	7.0	42.6	31.3	36.8	5.68	4.82	5.23
Extra-EC trade	100.0	100.0	100.0	100.0	100.0	100.0	1.00	1.00	1.00

Sources: EC Official Journal, COMTRADE.
Note : [a] shares in antidumping cases divided by shares in extra-EC trade.

P.A. Messerlin, Experiences of Developing Countries with Antidumping Laws, The World Bank, May 1988.

Table 3. Breakdown of the EC antidumping measures, by group of trade partners

Trade Partners	Total number of cases [a]	Measures taken [as a % of total number of cases] "Possibly" protective measures [b]	Ad valorem duties	Other duties [c]	Undertakings dumping [d]	Undertakings injury [e]	Mixed measures # 1 [f]	Mixed measures # 2 [g]	Ad valorem equivalents of the protective measures taken preliminary [h] %	definitive [h] %	definitive [i] %
Indust'd Ctries	64	18.8	12.5			15.6	26.6	10.9	16.5	12.1	15.2
USA	25	24.0	8.0			20.0	24.0	24.0	16.8	10.8	13.6
Japan	17	17.6	35.3			5.9	35.3	5.9	17.3	14.3	17.2
EFTA	12	25.0				33.3	41.7		8.0	3.0	6.7
Others	10	20.0	10.0			30.0	40.0		16.0	13.8	17.3
Newly-Ind'd Ctries	76	42.1	5.3	5.3	6.6	25.0	9.2	6.6	21.7	10.1	19.2
Asean NICs	9	54.5	9.1		9.1			27.3	35.5	19.2	32.0
Latin NICs	19	26.3		10.5	5.3	31.6	26.3		20.2	12.5	20.4
Medit. NICs	46	45.7	6.5	4.3	6.5	28.3	4.3	4.3	21.0	6.2	13.9
Developing Ctries	18	44.4	5.6	5.6	5.6	33.3	5.6		26.5	17.6	35.2
China	13	30.8	7.7	7.7	7.7	38.5	7.7		26.5	28.2	35.2
Other LDCs	5	80.0				20.0			---	[j]	[j]
Non-Market Ctries	103	26.2	1.0	5.8	11.7	46.6	5.8	2.9	34.7	20.8	32.5
All countries	261	30.3	5.4	4.2	6.9	31.8	11.9	5.7	22.3	14.5	22.7

Sources: EC Official Journal, Own computations.

Notes : [a] cases initiated between 1980 and 1985. In few cases, investigations led to determinations by sub-products: this explains that there are 261 cases (and not 247 as in Table 1).
[b] cases terminated by no or de minimis dumping or no injury.
[c] specific or variable duties.
[d] undertakings accepted by the Commission and based on the margin of dumping.
[e] undertakings accepted by the Commission and based on the margin of injury.
[f] all measures terminating these cases are of protective nature.
[g] measures terminating these cases are of protective and "possibly" protective nature.
[h] unweighted averages of ad valorem duties and ad valorem equivalents of other duties and undertakings based on the margin of dumping. Cases with no or de minimis dumping and no injury receive ad valorem equivalents of 0%. Cases terminated by undertakings based on the margin of injury are not included.
[i] as [h], except that cases with no or de minimis dumping and no injury are excluded.
[j] no estimates available (all cases are terminated by undertakings based on the margin of injury).

P.A. Messerlin, Experiences of Developing Countries with Antidumping Laws, The World Bank, May 1988.

Table 4. The decline in imported quantities under the EC antidumping actions

	Initiation year									Ad valorem equivalents of measures	
	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4	t+5	%	
(i) all cases with all outcomes [a]											
all years	70.1	80.7	96.6	100.0	82.3	72.3	64.1	61.5	49.2	14.5	
1980 cases	48.2	51.6	80.3	100.0	74.0	64.2	51.5	57.8	49.2	10.1	
1981 cases	71.4	87.3	101.9	100.0	72.8	61.0	65.4	65.6		16.5	
1982 cases	73.2	85.0	93.9	100.0	78.9	68.4	72.1			25.2	
1983 cases	73.7	80.5	100.5	100.0	95.2	92.9				10.5	
1984 cases	79.4	88.7	98.5	100.0	88.7					15.4	
1985 cases	72.5	90.1	121.6	100.0						12.6	[b]
(ii) all cases with protective measures, by type of measures [c]											
all measures	66.1	75.2	92.3	100.0	79.8	66.4	55.5	59.6	42.1	22.7	[a]
ad valor. duties	47.6	66.1	75.7	100.0	58.4	44.9	20.5	[f]	[f]	20.8	
undertakings	82.4	86.1	99.4	100.0	84.2	72.6	69.4	87.2	[f]	22.0	[a]
mixed measures	59.4	70.4	91.4	100.0	80.9	64.5	51.9	45.4	34.8	23.2	[a]
(iii) all cases with "possibly" protective measures											
all cases	85.6	100.4	104.3	100.0	90.6	91.6	99.7	68.2	65.0	0.0	
(iv) cases with protective measures, by group of countries [a][d][e]											
all Countries	62.0	72.6	87.3	100.0	75.8	63.8	49.0	58.1	42.1	14.5	
Indust'd Ctries	52.5	65.5	85.6	100.0	67.1	54.0	21.9	20.9	21.0	12.1	
Developing Ctries	44.0	63.8	104.9	100.0	59.2	73.7	78.3	[f]	[f]	17.6	
Newly-Ind'd Ctries	52.1	66.2	76.4	100.0	86.8	72.9	71.5	[f]	[f]	10.1	
Non-Market Ctries	88.0	92.4	98.6	100.0	79.5	65.5	63.6	70.6	75.0	20.8	

Sources: EC Official Journal, Eurostat trade data, Own computations.

Notes : [a] including cases terminated by "possibly" protective measures [for details, see Table 3, b & g].
[b] according to the most plausible estimates for undertakings based on the margin of injury.
[c] excluding --when possible-- cases terminated with "possibly" protective measures.
[d] excluding cases involving more than one group of countries.
[e] including cases terminated with "possibly" protective measures.
[f] no sufficient number of cases.

P.A. Messerlin, Experiences of Developing Countries with Antidumping Laws, The World Bank, May 1988.

Table 5: The trade diversion effect of the EC antidumping measures

	Initiation year								
	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4	t+5
A. Evolution of the intra-EC trade [a]:									
(i) all cases with all outcomes									
all years	112.6	108.7	102.0	100.0	108.9	113.4	116.1	120.7	124.0
(ii) all cases with protective measures, by type of measures:									
all measures	99.9	102.4	102.2	100.0	108.8	115.2	122.0	128.9	122.7
ad valorem duties	94.8	89.8	103.4	100.0	111.0	128.1	149.3	[d]	[d]
undertakings	98.4	100.8	102.6	100.0	107.4	114.1	101.5	117.6	[d]
mixed measures [c]	99.4	99.9	100.9	100.0	106.6	115.8	104.3	122.3	100.8
(iii) all cases with "possibly" protective measures:									
all cases	156.5	130.4	101.3	100.0	109.5	106.4	95.1	97.3	126.7
B. Evolution of extra-EC imports [b]:									
(i) all cases with all outcomes									
all years	122.8	119.1	110.9	100.0	119.4	134.6	136.5	148.4	198.6
(ii) all cases with protective measures, by type of measures:									
all measures	114.8	113.7	114.6	100.0	119.8	136.7	147.4	161.3	218.2
ad valorem duties	96.5	92.9	87.4	100.0	97.4	105.6	75.7	[d]	[d]
undertakings	97.5	95.7	123.2	100.0	115.5	116.7	124.5	127.5	[d]
mixed measures [c]	130.8	131.1	114.2	100.0	127.7	152.9	166.6	191.6	261.4
(iii) all cases with "possibly" protective measures:									
all cases	151.4	137.9	98.4	100.0	117.8	126.6	102.2	114.5	163.4
C. Share of "dumped" imports in total extra-EC imports [e]:									
all Countries	42.7	45.4	49.4	49.3	44.5	40.1	38.4	32.3	26.5
Indust'd Ctries	52.3	53.8	59.1	60.7	52.4	48.5	41.8	29.2	25.0
Developing Ctries	20.5	23.5	28.0	26.8	16.9	22.3	20.8	[d]	[d]
Newly-Ind'd Ctries	28.8	30.6	28.6	29.9	25.0	18.0	10.9	[d]	[d]
Non-Market Ctries	38.1	40.4	42.3	39.3	36.7	31.8	30.9	28.9	15.2
D. Evolution of the total EC trade [f]:									
all cases with protective measures	93.5	97.1	99.9	100.0	100.7	104.3	107.0	109.8	104.0

Sources: EC Official Journal, Eurostat trade data, Own computations.

Notes : [a] quantities traded between the 10 Member States.
[b] imported quantities coming from "non-dumping" countries.
[c] including cases with "possibly" protective measures.
[d] no sufficient number of cases.
[e] excluding cases involving more than one group of countries.
[f] "dumped", "non-dumped" and intra-EC imports for all cases with protective measures.

P.A. Messerlin, Experiences of Developing Countries with Antidumping Laws, The World Bank, May 1988.

Table 6. The "foreign rent" effect of the EC antidumping measures

	Initiation year								
	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4	t+5
A. Evolution of "dumped" prices [a]:									
(i) all cases with all outcomes									
all years	106.7	104.2	104.2	100.0	106.6	111.6	114.5	117.3	124.4
(ii) all cases with protective measures, by type of measures:									
all measures	104.6	103.1	103.9	100.0	105.9	109.2	118.7	120.0	129.6
ad valorem duties	111.4	103.1	99.1	100.0	102.3	99.3	93.6	[d]	[d]
undertakings	101.8	106.0	100.8	100.0	106.9	109.3	105.2	100.8	[d]
mixed measures [b]	105.0	101.0	107.0	109.0	105.8	110.1	127.0	135.9	138.1
(iii) all cases with "possibly" protective measures:									
all cases	113.6	108.1	105.2	100.0	109.6	120.6	98.6	109.5	110.1
(iv) cases with protective measures, by group of countries [c]:									
all countries	103.2	101.4	103.9	100.0	106.7	109.2	120.2	123.9	129.6
Indust'd Ctries	103.7	101.6	101.9	100.0	111.9	114.6	143.2	147.6	138.7
Developing Ctries	96.5	101.4	105.1	100.0	126.2	126.5	102.7	[d]	[d]
Newly-Ind'd Ctries	103.2	97.6	108.9	100.0	98.1	100.4	101.1	[d]	[d]
Non-Market Ctries	103.5	104.8	101.8	100.0	104.4	105.6	103.6	100.2	62.4
B. Evolution of extra-EC "non-dumped" prices [e]:									
(i) all cases with all outcomes									
all years	110.0	99.9	97.1	100.0	104.0	102.2	105.1	102.8	100.7
(ii) all cases with protective measures, by type of measures:									
all measures	110.0	98.7	94.7	100.0	104.7	102.3	98.2	101.8	96.3
ad valorem duties	89.3	91.1	90.9	100.0	108.4	97.4	99.9	[d]	[d]
undertakings	132.3	107.3	96.7	100.0	109.0	110.4	108.6	101.4	[d]
mixed measures [b]	99.0	94.4	94.1	100.0	101.0	97.7	93.0	102.8	95.8
(iii) all cases with "possibly" protective measures:									
all cases	110.1	103.9	105.7	100.0	101.2	102.0	129.4	105.8	110.3
(iv) cases with protective measures, by group of countries [c]:									
all countries	114.2	97.4	94.7	100.0	107.9	104.1	98.0	101.5	96.3
Indust'd Ctries	105.2	89.8	92.0	100.0	108.0	98.0	94.7	98.9	96.6
Developing Ctries	121.4	98.1	96.4	100.0	124.2	158.2	101.9	[d]	[d]
Newly-Ind'd Ctries	141.3	101.7	95.0	100.0	100.2	97.6	94.8	[d]	[d]
Non-Market Ctries	99.0	104.5	98.1	100.0	111.9	105.1	104.0	107.4	101.4

Sources: EC Official Journal, Eurostat trade data, Own computations.
Notes : [a] unit values --in constant ECUs-- of the "dumped" imports.
[b] including cases with "possibly" protective measures.
[c] excluding cases involving more than one group of countries.
[d] no sufficient number of cases.
[e] unit values --in constant ECUs-- of the "non-dumped" imports.

P.A. Messerlin, Experiences of Developing Countries with Antidumping Laws, The World Bank, May 1988.

Table 7: The "price maintenance" effect of the EC antidumping measures

	Initiation year								
	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4	t+5
A. Evolution of the intra-EC prices [a]:									
(i) all cases with all outcomes									
all years	104.5	103.0	100.8	100.0	100.8	101.7	100.3	97.4	99.9
(ii) all cases with protective measures, by type of measures:									
all measures	103.1	102.3	100.9	100.0	100.6	102.3	101.4	98.4	100.2
ad valorem duties	111.2	107.6	100.2	100.0	95.8	91.1	82.3	[d]	[d]
undertakings	105.9	107.3	102.9	100.0	99.8	102.9	107.0	96.2	[d]
mixed measures [b]	99.5	97.8	99.8	100.0	102.2	103.0	99.9	102.7	106.7
(iii) all cases with "possibly" protective measures:									
all cases	109.3	105.6	100.2	100.0	101.3	99.1	95.9	94.5	99.3
(iv) cases with protective measures, by group of countries [c]:									
all countries	103.8	102.2	100.7	100.0	100.4	100.0	97.8	94.9	98.8
Indust'd Ctries	107.0	100.6	100.9	100.0	102.6	103.5	99.4	102.7	108.3
Developing Ctries	90.7	108.3	106.2	100.0	90.5	120.5	131.1	[d]	[d]
Newly-Ind'd Ctries	104.5	100.8	97.1	100.0	98.0	95.5	90.5	[d]	[d]
Non-Market Ctries	98.9	105.7	103.2	100.0	101.3	93.9	92.6	85.5	55.2
B. Evolution of "dumped" prices relatively to intra-EC prices:									
(i) all cases with all outcomes									
all years	103.9	102.1	105.2	100.0	106.1	107.0	112.6	118.9	123.0
(ii) all cases with protective measures, by type of measures:									
all measures	102.5	101.3	103.8	100.0	105.6	107.7	117.3	121.9	128.5
ad valorem duties	100.7	96.2	99.1	100.0	106.7	109.6	116.2	[d]	[d]
undertakings	98.2	99.6	99.3	100.0	107.6	106.6	102.1	105.3	[d]
mixed measures [b]	105.8	103.6	107.8	100.0	103.9	108.2	124.7	131.1	129.0
(iii) all cases with "possibly" protective measures:									
all cases	108.5	104.7	109.9	100.0	108.3	104.0	94.9	109.8	107.9
(iv) cases with protective measures, by group of countries [c]:									
all countries	101.7	100.7	103.8	100.0	106.1	108.8	121.1	127.2	128.5
Indust'd Ctries	101.0	104.0	100.8	100.0	108.6	110.4	141.7	141.4	129.1
Developing Ctries	100.7	97.7	102.1	100.0	136.9	105.7	80.5	[d]	[d]
Newly-Ind'd Ctries	102.2	98.0	112.9	100.0	100.2	107.7	109.6	[d]	[d]
Non-Market Ctries	102.4	99.2	99.2	100.0	102.4	108.5	108.1	113.5	110.6

Sources: EC Official Journal, Eurostat trade data, Own computations.
Notes : [a] unit values --in constant ECUs-- of intra-EC trade.
[b] including cases with "possibly" protective measures.
[c] excluding cases involving more than one group of countries.
[d] no sufficient number of cases.

P.A. Messerlin, Experiences of Developing Countries with Antidumping Laws, The World Bank, May 1988.

PPR Working Paper Series

	Title	Author	Date	Contact
WPS1	Imports Under a Foreign Exchange Constraint	Cristian Moran	March 1988	C. Hambidge 61539
WPS2	Issues in Adjustment Lending	Vinod Thomas	March 1988	C. Hambidge 61539
WPS3	CGE Models for the Analysis of Trade Policy in Developing Countries	Jaime de Melo	March 1988	C. Hambidge 61539
WPS4	Inflationary Rigidities and Stabilization Policies	Miguel A. Kiguel Nissan Liviatan	April 1988	M. Kiguel 61761
WPS5	Comparisons of Real Output in Manufacturing	Angus Maddison Bart van Ark	April 1988	E. Zamora 33706
WPS6	Farm-Nonfarm Linkages in Rural Sub-Saharan Africa	Steven Haggblade Peter B. Hazell James Brown	April 1988	C. Spooner 37570
WPS7	Institutional Analysis of Credit Cooperatives	Avishay Braverman J. Luis Guasch	April 1988	C. Spooner 37570
WPS8	Prospects for Equitable Growth in Rural Sub-Saharan Africa	Steven Haggblade Peter B. Hazell	April 1988	C. Spooner 37570
WPS9	Can We Return to Rapid Growth?	Andrea Boltho	June 1988	J. Israel 31285
WPS10	Optimal Export Taxes for Exporters of Perennial Crops	Mudassar Imran Ron Duncan	June 1988	A. Kitson-Walters 33712
WPS11	The Selection and Use of Pesticides in Bank Financed Public Health Projects	Bernhard Liese Norman Gratz	June 1988	C. Knorr 33611

	Title	Author	Date	Contact
WPS12	Teacher-Non-Teacher Pay Differences in Cote d'Ivoire: Some Empirical Evidence	A.G. Komenan C. Grootaert		
WPS13	Objectives and Methods of a World Health Survey	Trudy Harpham Ian Timaeus	June 1988	A. Menciano 33612
WPS14	Optimal Currency Composition of External Debt: A Theoretical Approach	Stijn Claessens		
WPS15	Stimulating Agricultural Growth and Rural Development in Sub-Saharan Africa	Vijay S. Vyas Dennis Casley	June 1988	H. Vallanasco 37591
WPS16	Antidumping Laws and Developing Countries	Patrick Messerlin	June 1988	S. Torrijos 33709
WPS17	Economic Development and the Debt Crisis	Stanley Fischer		
WPS18	China's Vocational and Technical Training	Harold Noah John Middleton	June 1988	W. Ketema 33651
WPS19	Vocational and Technical Education in Cote d'Ivoire: An Economic Assessment	Christiaan Grootaert		
WPS20	Imports and Growth in Africa	Ramon Lopez Vinod Thomas	June 1988	61679
WPS21	Effects of European VERs on Japanese Autos	Jaime de Melo Patrick Messerlin	June 1988	S. Fallon 61680
WPS22	Methodological Problems in Cross-Country Analyses of Economic Growth	Jean-Paul Azam Sylviane Guillaumont	June 1988	E. Zamora 33706